

# Contribution to the Flora of Tirap Frontier Division

BY

D. B. DEB AND R. M. DUTTA  
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[Continued from Vol. 69 (3) : 573]

## ANACARDIACEAE

### ***Rhus semialata* Murr.**

Small tree with dull white flowers ; common. Margharita-Jairampur, Oct. 1959, *Rao* 19934. Namsang-Shoha, Oct. 1959, *Rao* 20345.

### ***R. succedanea* Linn. var. *acuminata* (DC.) Hook. f.**

Medium-sized tree in fruit. One of the most common trees of this forest. Banfera-Kanubari, July 1961, *Deb* 26746.

### ***Pegia nitida* Colebr.**

*Tapiria hirsuta* Hook. f.

A scandent shrub. Chenglang, March 1958, *Murthy* 12913.

## ACERACEAE

### ***Acer laevigatum* Wall.**

Large tree in fruit ; scarce. Chennhang, June 1961, *Deb* 26279.

## STAPHYLEACEAE

### ***Turpinia nepalensis* Wall. ex Wt. et Arn.**

Small tree in fruit ; fruits 3-seeded, globose ; common. Chennhang, June 1961, *Deb* 26245, 26246, & 26249 ; Lailongsong, 510 m, June 1961, *Deb* 25804.

## POTALIACEAE

### ***Fagraea obovata* Wall. ex Roxb.**

Medium-sized tree with yellow flowers ; common. Chennhang, June 1961, *Deb* 26237.

## BUDDLEIACEAE

**Buddleia asiatica** Lour.

Shrub with small, pinkish showy flowers ; scarce. Chennhang, March 1958, *Murthy* 12926.

**B. macrostachya** Benth.

Shrub in fruit. Fruits dark brown on drying ; common. Lailongsong, June 1961, *Deb* 26131 ; Noglo, June 1961, *Deb* 26352.

## STRYCHNACEAE

**Gardneria ovata** Wall.

Shrub in flower, rare. Pungchow, July 1961, *Deb* 26619.

**Strychnos wallichiana** Benth.

Climber with large fruits ; rare. Kanubari, July 1961, *Deb* 26757.

## OLEACEAE

**Jasminum amplexicaule** G. Don

Climber with white flowers. Margharita-Jairampur, Oct. 1959, *Rao* 19965.

**J. attenuatum** Roxb.

A climber in flower ; scarce. Wakka, July 1961, *Deb* 26523.

**J. coarctatum** Roxb.

Shrub with white mild scented flower, scarce. Pungchow, July 1961, *Deb* 26595 ; Chenglang-Khela, March 1958, *Murthy* 12940.

**J. glandulosum** Wall. ex DC.

A scandent climber with white flowers ; rare. Pungchow, July 1961, *Deb* 26618 ; Wakka-Nagminu, July 1961, *Deb* 26536.

**J. sambac** Ait.

A wild Jasmine with white flowers, fairly common. Namchick, 152 m, Oct. 1959, *Rao* 20176.

**J. subtriplinerve** Bl.

Shrub ; scarce. Pungchow, July 1961, *Deb* 26631.

**Ligustrum robustum** Bl.

A tall shrub in fruit ; scarce. Chennhang, June 1961, *Deb* 26209 ; Langsang forest, June 1961, *Deb* 26127.

**L. roxburghii** Clarke

Small tree with white flowers ; scarce. Laju-Raho, Aug. 1958, *Panigrahi* 14713 ; Jadua-Banfera, July 1961, *Deb* 26687.

**Myxopyrum smilacifolium** Bl.

A twiner on shrubs ; in fruit ; scarce. Deomali, Oct. 1959, *Rao* 20323.

APOCYNACEAE

**Chonemorpha fragrans** (Moon) Alston

A large climber with scented white flowers ; rare. Chenglang-Khela, 600 m, March 1958, *Murthy* 12941 ; Tipang, June 1961, *Deb* 25716 ; Banfera, June 1961, *Deb* 26708.

**C. griffithii** Hook. f.

A stout climber with scented white flowers. Langsang forest, June 1961, *Deb* 26144.

**Ichnocarpus ovatifolius** A. DC.

Climber with white flowers ; scarce. Banfera-Kanubari, July 1961, *Deb* 26731.

**Melodinus khasiana** Hook. f.

A tall climber with milky juice. Flowers white ; scarce. Langsang forest, June 1961, *Deb* 26120 ; Pungchow, July 1961, *Deb* 26629.

**M. monogynus** Roxb.

Climber with white flowers. This is larger than *M. khasiana* Hook f. ; rare. Noglo, June 1961, *Deb* 26363.

**Pottsia laxiflora** (Bl.) O. Kuntze

A scandent shrub with purple flowers ; scarce. Tipang, June 1961. *Deb* 25706.

**Strophanthus wallichii** A. DC.

Shrub with scented white flowers. Jangkeng village, June 1961. *Deb* 25865.

**Tabernaemontana divaricata** (Linn.) R. Br. ex Roem. et Schult.

A small shrub with white flowers ; common. Margarita-Jairampur, Oct. 1959, *Rao* 19919 ; Namchick, 152 m, Oct. 1959, *Rao* 20185 ; Chenglang, Oct. 1959, *Rao* 20246.

**Trachelospermum axillare** Hook. f.

A climber with milky juice. Scented red or pink flowers ; rare. Chegum-Wakka, July 1961, *Deb* 26470 ; Chennhang, June 1961, *Deb* 26208 ; Pungchow, July 1961, *Deb* 26607.

**T. lucidum** (D. Don) K. Sch.

Shrub with white flowers. Noglo, June 1961, *Deb* 26353.

## PEREPLOCACEAE

**Cryptolepis buchanani** Roem. & Schult. f.

Climber with fruits ; scarce. Pungchow, July 1961, *Deb* 26588.

**C. sinensis** (Lour.) Merr.

*C. elegans* Wall. ex G. Don

Climber with pale yellow flowers ; scarce. Lunwa, July 1961, *Deb* 26640 ; Lailongsong, 510 m, June 1961, *Deb* 25801.

**Pentanura khasiana** Kurz

Climber with milky juice in pinkish white flowers ; scarce. Jadua-Banfera, July 1961, *Deb* 26694 ; Pungchow, July 1961, *Deb* 26603.

**Periploca calophylla** Falc.

A much-branched climber in fruits. Chennhang, June 1961, *Deb* 26219 ; Wakka, July 1961, *Deb* 26510.

## ASCLEPIADACEAE

**Asclepias curassavica** Linn.

An undershrub. Flowers bright red with yellow projecting corona ; scarce. Chenglang, Oct. 1959, *Rao* 20247.

**Ceropegia angustifolia** Wight

Climber with yellowish brown flowers with brown stripes ; rare. Laju-Raho, Aug. 1958, *Panigrahi* 14748.

**Cynanchum wallichii** Wt.

A climber. Pungchow, July 1961, *Deb* 26573.

**Dischidia bengalensis** Colebr.

An epiphyte with milky juice on *Schima wallichii* Choisy ; common. Jadua, July 1961, *Deb* 26662.



**D. nummulaxia** R. Br.

A small epiphyte with linear fruits ; rare. Khela, March 1958, *Murthy* 12970.

**Dregea volubilis** (Linn. f.) Benth. ex Hook. f.

A scarce twiner. Soha village, 1067 m, Oct. 1959, *Rao* 20363.

**Haterostemma alatum** Wt.

Twiner with brownish-yellow flowers ; scarce. Chegum-Wakka, July 1961, *Deb* 26491.

**Hoya lanceolata** Wall. ex D. Don.

An epiphyte with creamy-white flowers with pinkish stamens ; common. Wakka, Aug. 1958, *Panigrahi* 14935 ; Raho, July 1961, *Deb* 26457 ; Deomali, June 1961, *Deb* 25909.

**H. linearis** Wall. ex D. Don.

An epiphyte with milky latex ; scarce. Chennhang, June 1961, *Deb* 26183.

**H. longifolia** Wall. ex Wt.

An epiphyte with white flowers ; scarce. Kothong, June 1961, *Deb* 26044 ; Chegum-Wakka, July 1961, *Deb* 26475 ; Khonsa-Laju, June 1961, *Deb* 25990.

**H. parasitica** Wall.

A climber on *Shorea robusta* Linn. f. with white flowers ; common. Deomali, June 1961, *Deb* 25881.

**Tylophora belostemma** Benth.

A climber. Chegum-Wakka, July 1961, *Deb* 26480.

**T. hirsuta** (Wall.) Wt.

Climber with small violet flowers ; rare. Pungchow, July 1961, *Deb* 26579.

RUBIACEAE

**Acranthera tomentosa** Br.

A scarce shrub. Banfera, July 1961, *Deb* 26709.

**Coffea arabica** Linn.

A bushy shrub with white flowers. Cultivated. Khela, June 1961, *Deb* 25933.

**Galium asperifolium** Wall. ex Roxb.

A diffused herb with very small flowers ; common. Khonsa, June 1961, *Deb* 25971 ; Chennhang, June 1961, *Deb* 26218 ; Kothong, June 1961, *Deb* 26073.

**Hedyotis verticillata** (L.) Lamk.

Herb with small white flowers ; common. Margharita-Jairampur, Oct. 1959, *Rao* 19925 ; Niausa, July 1961, *Deb* 26564.

**H. lindleyana** Hook. f. ex Wt. & Arn.

A prostrate herb with white flowers, scarce. Raho, July 1961, *Deb* 26427.

**H. scandens** Roxb. ex D. Don

An undershrub with ripe bluish fruits, common. Margharita-Jairampur, Oct. 1959, *Rao* 19943 ; Nampong-Pangsupass, Oct. 1959, *Rao* 20055 ; Niausa, Sept. 1958, *Panigrahi* 15011, Langsang forest, June 1961, *Deb* 26140,

**H. vestita** R. Br. ex G. Don

Herb with greenish violet flowers ; rare. Pungchow, July 1961, *Deb* 26587.

**H. diffusa** Willd.

A common herb. Soha village, Oct. 1959, *Rao* 20372.

**Knoxia sumatrensis** (Retz.) DC.

A rare herb. Jadua-Banfera, July 1961, *Deb* 26686.

**Lasianthus biermannii** King ex Hook. f.

Shrub with globose, winged fruits ; common. Chennhang, June 1961, *Deb* 26248 ; Chegum-Wakka, July 1961, *Deb* 26481.

**L. sikkimensis** Hook. f.

Shrub in fruit ; scarce. Pungchow, July 1961, *Deb* 26593.

**L. tubiferus** Hook. f.

A common shrub. Chegum-Wakka, July 1961, *Deb* 26478.

**Morinda angustifolia** Roxb.

Shrub with white flowers ; scarce. Jadua-Banfera, July 1961, *Deb* 26673 & 26674 ; Deomali, June 1961, *Deb* 25883 ; Banfera, July 1961, *Deb* 26701.

**M. villosa** Hook. f.

A shrub about 3 m in height with orange red fruits ; rare. Rusa-Bimalpur, Sept. 1958, *Panigrahi* 16913.

**Mussaenda glabra** Vahl

Shrub with hirsute flowers and dark green fruits ; common. Nampong-Pangsupass, Oct. 1959, *Rao* 20030 ; Jangkeng village, June 1961, *Deb* 25866 ; Raho, July 1961, *Deb* 26416 ; Chennhang, June 1961, *Deb* 26212 ; Chenglang, March 1958, *Murthy* 12914.

**M. glabrata** (Hook. f.) Hutch.

Shrub with green globular fruits ; scarce. Jairampur, Oct. 1959, *Rao* 19973 ; Nampong-Pangsupass, Oct. 1959, *Rao* 20018.

**M. macrophylla** Wall.

Shrub with globose, hairy fruits ; scarce. Kothong, June 1961, *Deb* 26021 & 26077 ; Lailongsong, 510 m, June 1961, *Deb* 25811.

**M. roxburghii** Hook. f.

Shrub with modified sepals white, leaf-like ; in fruit ; common. Tipang, 540 m, June 1961, *Deb* 25702 ; Longsek hillock, 1500 m, June 1961, *Deb* 25732.

**M. wallichii** G. Don

An undershrub with yellow flowers ; common. Tipang, 540 m. June 1961, *Deb* 25700.

**Mycetia longifolia** (Wall.) O. Kuntze

Shrub with small, creamy white or yellow flowers ; scarce. Nampong-Pangsupass, Oct. 1959, *Rao* 20069 ; Wakka, July 1961, *Deb* 26508 ; Jangkeng village, June 1961, *Deb* 25859 ; Banfera, July 1961, *Deb* 26707.

**Myrioneuron nutans** Wall. ex Kurz

An undershrub with small yellow fruits ; scarce. Niausa, Sept 1958, *Panigrahi* 16714 ; Banfera, July 1961, *Deb* 26704 ; Pungchow, July 1961, *Deb* 26576.

**Neanotis ingrata** (Wall. ex Hook. f.) W. H. Lewis

A soft herb with white flowers ; common. Rusa, Sept. 1958, *Panigrahi* 16946 ; Chenglang-Khela, Oct. 1959, *Rao* 20265.

**N. wightiana** (Wall. ex Wt. et Arn.) W. H. Lewis

Small herb with white or violet flowers, scarce. Chennhang, June 1961, *Deb* 26184 & 26203 ; Langsang forest, June 1961, *Deb* 26136.

**Ophiorrhiza calcarata** Hook. f.

Herb with pink flowers ; rare. Jangkeng village, June 1961, *Deb* 25864.

**O. harrisiana** Heyne

A common herb with white flowers. Grows gregariously and forms the undergrowth in moist situations. Pungchow, July 1961, *Deb* 26612; Noglo, June 1961, *Deb* 26333.

**O. pauciflora** Hook. f.

Small herb with white flowers; fairly common. Pungchow, July 1961, *Deb* 26601.

**O. succirubra** King ex Hook. f.

Herb with pink flowers; common. Chennhang, June 1961, *Deb* 26262; Langsang forest, June 1961, *Deb* 26121 & 26122.

**O. treutleri** Hook. f.

A succulent herb with pink flowers and green fruits; scarce. Kothong, June 1961, *Deb* 26065.

**Paederia scandens** (Lour.) Merr.

A twiner with hairy, violet flowers with pungent odour; scarce. Nampong-Pangsupass, Oct. 1959, *Rao* 20014.

**Pavetta subcapitata** Hook. f.

Shrub with globose berries; scarce. Banfera, July 1961, *Deb* 26700.

**Polyura geminata** Hook. f.

A small herb with very minute red or pink flowers; common. Deomali, Oct. 1959, *Rao* 20392; Jadua, July 1961, *Deb* 26670; Deomali, June 1961, *Deb* 25888; Longsek hillock, 1500 m, June 1961, *Deb* 25737.

**Psychotria fulva** Buch.-Ham.

Herb with small flowers and fruits; scarce. Banfera, July 1961, *Deb* 26699; Lailongsong, 510 m, June 1961, *Deb* 25826; Longsek hillock, 1500 m, June 1961, *Deb* 25731.

**P. montana** Bl.

A common shrub. Fruiting; Langsang forest, June 1961, *Deb* 26128.

**P. thomsonii** Hook. f.

A common shrub of the undergrowth. Chegum-Wakka, July 1961, *Deb* 26469.

**Randia griffithii** Hook. f.

A tree in fruit. Khonsa-Laju, June 1961, *Deb* 25960.

**R. wallichii** Hook. f.

A medium-sized tree in flower, scarce. Chennhang, June 1961, *Deb* 26250.

**Rubia sikkimensis** Kurz

A rare climber. Langsang forest, June 1961, *Deb* 26154.

**Saprosma ternatum** Hook. f.

A shrub about 3 m in height. Fruiting; rare. Nginu-Niausa, Aug. 1958, *Panigrahi* 14802.

**Spermacoce ocymoides** Burm. f.

A common herb with woody base, white flowers and fruits. Lailongsong, 510 m, June 1961, *Deb* 25824.

**Spiradiclis bifida** Wall. ex Kurz

A common succulent herb with very small, pale white flowers; common. Tipang, June 1961, *Deb* 25705, Lailongsong, 510 m, June 1961, *Deb* 25822.

**S. cylindrica** Wall. ex Hook. f.

Small herb with small yellow or creamy-white flower; scarce. Chenglang-Khela, Oct. 1959, *Rao* 20279; Lailongsong, 510 m., June 1961, *Deb* 25823; Chennhang, June 1961, *Deb* 26185.

**Tarenna odorata** (Roxb.) Robinson

Tree with white flowers and fruits; rare. Deomali, June 1961, *Deb* 25879.

**Uncaria macrophylla** Wall.

A large shrub, scandent, in fruit. Margharita- Jairampur, Oct. 1959, *Rao* 19952.

**U. homomalla** Miq.

A scandent shrub with fruits; scarce. Chenglang, March 1958, *Murthy* 12915.

**U. sessilifructus** Roxb.

A large scandent shrub in fruit; scarce. Namchick-Chenglang, Oct. 1959, *Rao* 20211 (A); Raho-Wakka, July 1961, *Deb* 26393.

**Meyna laxiflora** Robyns

*Vangueria spinosa* Roxb.

A bushy shrub with flowers and fruits growing in clearings in the forest. Lunwa, July 1961, *Deb* 26641.

**Wendlandia wallichii** Wt. & Arn.

A small tree with small, sessile flowers and greyish green fruits in large bunches; common. Chennhang, June 1961, *Deb* 26244; Wakka, July 1961, *Deb* 26505.

## BIGNONIACEAE

**Radermachera bipinnata** (Coll. et Hemsl.) Van Steenis

A climber. Flower showy, yellow outside and violet inside. This is worthy of introduction as an ornamental plant. Langsang forest, June 1961, *Deb* 26124 ; Khonsa-Laju, June 1961, *Deb* 25943.

**R. gigantea** Miq.

A rare tree. Fruiting. Pungchow-Niausa, June 1961, *Deb* 26645.

**Stereospermum personatum** (Hassk.) Chatter.

A medium-sized tree with violet and yellowish tinged flower ; common, Longsek hillock, June 1961, *Deb* 25720 ; Wakka, July 1961, *Deb* 26537. Banfera-Kanubari, July 1961, *Deb* 26743.

## PEDALIACEAE

**Sesamum indicum** Linn.

Cultivated near cottages. Margharita-Jairampur, Oct. 1959, *Rao* 19946.

## VERBENACEAE

**Callicarpa arborea** Roxb. ex C. B. Clarke

A small tree with violet or pinkish flowers ; scarce. Banfera, July 1961, *Deb* 26697 ; Lailongsong, 510 m., June 1961, *Deb* 25788.

**C. longifolia** Lamk. var. **lanceolaria** Clarke

A shrub in the exposed region of the forest ; scarce. Deomali, Oct. 1959, *Rao* 20320 ; Deomali, July 1961, *Deb* 25892.

**C. rubella** Lindl.

A shrub with purple flowers and fruits ; common. Khonsa, June 1961, *Deb* 25916 ; Kothong, June 1961, *Deb* 26074.

**Clerodendron bracteatum** Wall. ex Walp.

A shrub with ripe bluish fruits ; Banfera-Kanubari, July 1961, *Deb* 26740.

**C. colebrookianum** Walp.

A shrub with white flower and dark green fruits with calyx ; common. Margharita-Jairampur, Oct. 1959, *Rao* 19956 ; Nampong-Pangsupass, Oct. 1959, *Rao* 20041 ; Deomali, Oct. 1959, *Rao* 20388.



**C. divaricatum** Jack

A tall shrub with whitish blue flowers and oily green fruits ; common. Lailongsong (Chenglang), 510 m, June 1961, *Deb* 25816 ; Deomali, Oct. 1959, *Rao* 20393 ; Pungchow, July 1961, *Deb* 26585.

**C. hastatum** Lindl.

A small tree ; scarce. Banfera-Kanubari, July 1961, *Deb* 26737.

**C. lasiocephalum** C. B. Clarke

Shrub with dull to deep red flowers and small green fruits ; scarce. Chenlang-Khela, Oct. 1959, *Rao* 20268 ; Kothong, June 1961, *Deb* 26085 ; Chenglang-Khela, March 1958, *Murthy* 12954.

**Premna racemosa** Wall. ex Schaner.

Shrub or small tree with white, small flowers ; scarce. Raho-Wakka, July 1961, *Deb* 26442 ; Pungchow, July 1961, *Deb* 26608 & 26630 ; Pungchow-Niausa, July 1961, *Deb* 26651 ; Noglo, June 1961, *Deb* 26328 & 26364.

**Verbena officinalis** Linn.

An undershrub ; very common. Khonsa-Laju, June 1961, *Deb* 25998 ; Kothong, June 1961, *Deb* 26072.

**Vitex canescens** Kurz

A big tree in zygomorphic, dull white flowers with externally tomentose corolla ; scarce. Chennhang, June 1961, *Deb* 26207.

**V. heterophylla** Roxb.

A medium-sized tree with small white flowers and fruits ; common. Chenglang-Khela, Oct. 1959, *Rao* 20258 ; Longsek hillock, 1500 m, June 1961, *Deb* 25728.

**V. negundo** Linn.

A shrub with blue-violet flowers ; common. Niausa, July 1961, *Deb* 26556.

HELLEBORACEAE

**Isopyrum adiantifolium** Hook. f. & Th.

A succulent herb. This is recorded to occur in Sikkim and upper Burma only (*vide* S. K. Mukerjee in *Bull. Bot. Surv. India* 2 : 106, 1960). This record from NEFA indicates that it is distributed all over the Eastern Himalayas from Sikkim to Burma. Raho-Wakka, July 1961, *Deb* 26435.



## RANUNCULACEAE

**Anemone howellii** W. W. Smith & Jeff.

A herb with dull white flowers ; scarce. Wakka, July 1961, *Deb* 26407.

**Ranunculus diffusus** DC.

A herb with yellow flowers ; scarce. Raho-Wakka, July 1961, *Deb* 26314.

**R. laetus** Wall. ex Royle

Herb with yellow flowers ; common. Khonsa-Laju, June 1961, *Deb* 25975.

**R. cantoniensis** DC.

Herb in yellow flowers ; scarce. Kothong, June 1961, *Deb* 26050 ; Pungchow, July 1961, *Deb* 26596.

**Thalictrum foliolosum** DC.

A herb with small flowers ; scarce. Wakka, July 1961, *Deb* 26514.

## MENISPERMACEAE

**Aspidocarya uvifera** Hook. f. & Thoms.

A climber with red flowers ; rare. Pungchow, July 1961, *Deb* 26616 & 26628.

**Haematocarpus thomsonii** Miers

A woody climber ; rare. Langsang forest, June 1961, *Deb* 26147.

**Pericamphylus glaucus** (Lamk.) Merr.

A climber with small flowers ; scarce, Chennhang, June 1961, *Deb* 26189 ; Langsang forest, June 1961, *Deb* 26148 ; March 1958, *Murthy* 12907.

**Stephania japonica** (Thunb.) Miers var. **discolor** (Miq.) Forman

A climber with red fruits ; scarce. Jairampur, Oct. 1959, *Rao* 19979 ; Lailongsong, 510 m., June 1961, *Deb* 25786 ; Kothong, June 1961, *Deb* 26114.

## ARISTOLOCHIAEAE

**Aristolochia platanifolia** Duchart.

A climber with 6-ridged fruits ; scarce. Wakka, July 1961, *Deb* 26501.

**A. saccata** Wall.

Climber with tan coloured flowers ; common. Chennhang, June 1961, *Deb* 26239 ; Raho-Wakka, July 1961, *Deb* 26405 ; Noglo, June 1961, *Deb* 26319.

**Asarum himalaicum** Hook. f. & Th. var. **bhutanicum** W. W. Smith

A succulent herb. Grows in moist, shaded area ; rare. Raho-Wakka, July 1961, *Deb* 26421.

PIPERACEAE

**Peperomia heyneana** Miq.

A succulent herb, sometimes grows as an epiphyte ; common. Raho-Vokanoska, Aug. 1958, *Panigrahi* 16845 ; Kothong, June 1961, *Deb* 26090, Khonsa-Laju, June 1961, *Deb* 25970 ; Noglo, June 1961, *Deb* 26354.

**P. pellucida** (Linn.) H.B.K.

An annual succulent herb ; common. Banfera-Longhoi, Aug 1958, *Panigrahi* 16755.

**P. tetraphylla** (Forst. f.) Hook. et Arn.

An epiphyte ; scarce. Chennhang, June 1961, *Deb* 26196 ; Khonsa-Laju, June 1961, *Deb* 25970.

**Piper attenuatum** Buch.-Ham.

A climber ; scarce. Jadua-Banfera, July 1961, *Deb* 26667 ; Lailongsong, 510 m, June 1961, *Deb* 25813.

**P. betle** Linn.

A cultivated twiner. Soha village, Oct. 1959, *Rao* 20361.

**P. boehmeriaefolium** Wall. ex C. DC. forma **glabrifolium** DC.

A scarce climber ; fruiting. Kheti-Tinchha, Aug. 1958, *Panigrahi* 14542.

**P. manni** DC.

An epiphyte with spikes ; scarce. Raho, Aug. 1958, *Panigrahi* 16823 ; Noglo, June 1961, *Deb* 26336.

**P. mullesua** D. Don

Succulent epiphyte ; scarce. Langsang forest, June 1961, *Deb* 26116 ; Longsek hillock, 1500 m, June 1961, *Deb* 25748.

**P. nepalense** Miq.

An epiphyte with about 25 cm long spike ; scarce. Pungchow, July 1961, *Deb* 26597 ; Longsek hillock, 1500 m, June 1961, *Deb* 25755.

**P. nigrum** Linn. var. **macrostachyum** C. DC.

A succulent shrub with solitary whitish green spike ; rare. Wakka, Aug. 1958, *Panigrahi* 14925 ; Kothong, June 1961, *Deb* 26045 ; Khela, June 1961, *Deb* 25935.

**P. peepuloides** Roxb.

A root climber with spike ; common. Deomali, Oct. 1959, *Rao* 20316 ; Longsek hillock, 1500 m, June 1961, *Deb* 25749.

**P. sylvaticum** Roxb.

A climber with long, pale green spike having small conical fruits ; scarce. Soha village, Oct. 1959, *Rao* 20359.

**P. thomsonii** Hook. f.

A root climber with erect fruiting spike ; scarce. Jairampur, Oct. 1959, *Rao* 19995 ; Deomali, June 1961, *Deb* 25889 ; Jadua-Banfera, July 1961, *Deb* 26676.

## SAURURACEAE

**Houttuynia cordata** Thunb.

A herb ; bracts white ; scarce. Jangkeng village, June 1961, *Deb* 25852.

## CHLORANTHACEAE

**Chloranthus officinalis** Bl.

An undershrub with very small sessile white flowers ; common. Chenglang-Khela, Aug. 1958, *Panigrahi* 14440 ; Jairampur, Oct. 1959, *Rao* 19997 ; Lailongsong, 510 m, June 1961, *Deb* 25791 ; Jadua-Banfera, July 1961, *Deb* 26677.

## PAPAVERACEAE

**Papaver somniferum** Linn.

A herb with solitary white flowers and fruits ; flowers and fruits vary much in size. Probably an escape from cultivation. Kothong, June 1961, *Deb* 26037.

CRUCIFERAE

**Brassica juncea** Czern. & Coss.

Herb under cultivation; yellow flower. Chennhang, June 1961, *Deb* 26272.

**B. rugosa** Prain

Herb. Probably an escape from cultivation. Chennhang, June 1961, *Deb* 26176.

**Cardamine circaeoides** Hook. f. & Th.

Herb. Noglo, June 1961, *Deb* 26318.

**C. hirsuta** Linn. var. *sylvatica* Link

An annual herb with small, white flowers; scarce. Raho, July 1961, *Deb* 26382; Noglo-Laju, June 1961, *Deb* 26368.

**C. scoriarum** W. W. Smith

A herb of moist shady situations at altitudes of 1800-2100 m; flowers and fruits in May-July. A native of China recorded for India by Deb in *Ind. For.* 91(3): 193, 1965. Wakka, July 1961, *Deb* 26411.

MOLLUGINACEAE

**Mollugo pentaphylla** Linn.

A diffused herb with greenish flowers; scarce. Niausa, July 1961, *Deb* 26561.

CARYOPHYLLACEAE

**Drymaria diandra** Bl.

A diffused or prostrate herb with light green or whitish flowers; common. Nampong-Pangsupass, 791-1128 m, Oct. 1959, *Rao* 20087.

POLYGONACEAE

**Fagopyrum cymosum** Meissn.

Herb with flowers in white heads. Forms pure stands on the forest floor; very common. Kothong, June 1961, *Deb* 26050; Khonsa-Laju, June 1961, *Deb* 26000.

**Polygonum alatum** Buch.-Ham.

A herb with white, yellow or pink heads; common. Khonsa, June 1961, *Deb* 25917; Kothong, June 1961, *Deb* 26025 & 26068; Chennhang,

June 1961, *Deb* 26178 ; Nampong-Pangsupass, Oct. 1959, *Rao* 20149 ; Pungchow, July 1961, *Deb* 26602.

**P. barbatum** Linn.

A perennial herb with greenish white flowers. Common in marshy places. Rusa-Bimalpur, Sept. 1958, *Panigrahi* 16960.

**P. caespitosum** Bl.

Herb with white or small pinkish flowers. Common in marshy places. Lailongsong, 510 m, June 1961, *Deb* 25830 ; Nampong-Pangsupass, Oct. 1959, *Rao* 20054.

**P. chinense** Linn.

A tall herb with white flowers in marshy regions. Lailongsong, 510 m, June 1961, *Deb* 25818 ; Noglo, June 1961, *Deb* 26323 ; Chennhang, June 1961, *Deb* 26257.

**P. chinense** Linn. var. **malaicum** (Danser) Steward

A perennial herb with brownish red flowers ; rare. Laju hills, Aug. 1958, *Panigrahi* 14662.

**P. chinense** Linn. var. **ovalifolia** Meissn.

A herb with black fruits. Tipang, 540 m, June 1961, *Deb* 25719.

**P. hydropiper** Linn. var. **hispidum** (Hook. f.) Steward

A perennial herb with red flowers ; scarce. Khonsa-Kheti, Aug. 1958, *Panigrahi* 14520.

**P. hydropiper** Linn. var. **flaccidum** (Meissn.) Steward

A perennial herb in greenish white flowers ; scarce. Jairampur, Oct. 1959, *Rao* 20003 ; Chenglang-Khela, Aug. 1958, *Panigrahi* 14435 ; Khonsa-Laju, June 1961, *Deb* 25980.

**P. runcinatum** Buch.-Ham.

A herb in white flowers ; scarce. Kothong, June 1961, *Deb* 26057.

**P. virginianum** Linn.

A perennial herb in red flower buds ; scarce. Wakka, Aug. 1958, *Panigrahi* 14911.

**Rumex maritimus** Linn.

A scarce herb that occurs in small communities. Khonsa-Laju, June 1961, *Deb* 25997.

AMARANTHACEAE

**Achyranthes aspera** Linn.

A small herb. Longsek hillock, 1500 m, June 1961, *Deb* 25746.

**A. bidentata** Bl.

A herb with green spike with pinkish tips ; scarce. Pungchow, July 1961, *Deb* 26613 ; Raho-Wakka, July 1961, *Deb* 26418.

**Alternanthera paronychioides** St. Hill.

An introduced herb with whitish chaffy inflorescence. Wakka, Aug. 1958, *Panigrahi* 14908.

**A. sessilis** (Linn.) DC.

A soft herb with condensed spike with creamy white flowers ; scarce. Jairampur, Oct. 1959, *Rao* 19985.

**A. lividus** Linn.

Prostrate herb. Langsang forest (Kothong), June 1961, *Deb* 26141.

**Celosia argentea** Linn.

A small herb with deep mauve or pinkish spike. Probably an escape from cultivation ; scarce. Chenglang-Khela, 600m, March 1958, *Murthy* 12938.

**Cyathula prostrata** (Linn.) Bl.

An annual herb with greenish white flowers ; common. Jairampur, Oct. 1959, *Rao* 19993 ; Longsek hillock, June 1961, *Deb* 25746.

LYTHRACEAE

**Cuphea balsamona** Ch. & Schl.

A prostrate herb with blue flowers ; scarce. Namchick-Chenglang, Oct. 1959, *Rao* 20211.

ONAGRACEAE

**Ludwigia octovalvis** (Jacq.) Raven sub sp. *sessiliflora* (Mich.) Raven

A scarce herb with yellowish flowers. Margharita-Jairampur, Oct. 1959, *Rao* 19931 ; Deomali, Oct. 1959, *Rao* 20303 & 20304 ; Niausa, July 1961, *Deb* 26562.

**Ludwigia prostrata** Roxb.

A herb of marshy places ; scarce. Namchick, 152 m, Oct. 1959, *Rao* 20183.



## GENTIANACEAE

**Canscora andrographioides** Griff. ex C. B. Clarke

A common herb, in flower and fruits. Namchick-Chenglang, Oct. 1959, *Rao* 20210.

**Exacum tetragonum** Roxb.

Herb with beautiful blue flowers ; scarce. Nampong-Pangsupass, Oct. 1959, *Rao* 20161.

**Tripterospermum speciosum** (Wall.) Raizada

A twiner, in flower ; scarce. Nampong-Pangsupass, Oct. 1959, *Rao* 20033.

## PRIMULACEAE

**Lysimachia congestiflora** Hemsl.

Herb with yellow flowers ; scarce. Chennhang, June 1961, *Deb* 26192. This was originally described from China. Its occurrence is an extension of its distribution.

**L. evalvis** Wall.

Herb with solitary, pendent flowers ; scarce. Langsang forest, June 1961, *Deb* 26123 ; Chennhang, June 1961, *Deb* 26258.

**L. japonica** Thunb.

A diffused much branched herb with yellow flowers ; common. Noglo-Laju, June 1961, *Deb* 26371 ; Khonsa-Laju, June 1961, *Deb* 25962, Kothong, June 1961, *Deb* 26059.

**L. lobelioides** Wall.

Herb with campanulate flowers ; scarce. Kothong, June 1961, *Deb* 26061.

**L. laxa** Bauda

Herb with yellow flowers ; common. Raho-Wakka, July 1961, *Deb* 26397 ; Noglo, June 1961, *Deb* 26317.

**L. rubiginosa** Hemsl.

Herb with yellow flowers ; scarce. Chegum-Wakka, July 1961, *Deb* 26483. Originally described from China, this record extends the distribution.



PLANTAGINACEAE

**Plantago erosa** Wall.

A very common herb in flower. Kothong, June 1961, *Deb* 26095 ; Lailongsong, June 1961, *Deb* 25815.

UMBELLIFERAE

**Eryngium foetidum** Linn.

A common perennial herb of open places. Flowering and fruiting. Sometimes cultivated for the leaves and fruits used in curries. Jadua-Banfera, July 1961, *Deb* 26679.

**Heracleum wallichii** DC.

A rare herb with white flowers, petiole winged with brown streaks. Laju-Raho, Aug. 1958, *Panigrahi* 14787 ; Chennhang, June 1961, *Deb* 26252.

**H. wallichii** DC. var. **elator** Clarke

A herb of moist soil ; scarce. Chenglang-Khela, Oct. 1959, *Rao* 20267.

**Hydrocotyle nepalensis** Hook.

A prostrate herb with small flowers. The juice of the leaves mixed with charcoal is used for wounds. The fruit is reputed to be a snake bite cure. Nampong-Pangsupass, Oct. 1959, *Rao* 20026 ; Tipang, June 1961, *Deb* 25710 ; Kothong, June 1961, *Deb* 26058 ; Raho-Wakka, July 1961, *Deb* 26396.

**H. podantha** Molkenb. var. **podantha** (Molkenboer) C.B. Clarke

A diffused runner ; scarce. Chenglang-Khela, Oct. 1959, *Rao* 20271 ; Langsang forest, June 1961, *Deb* 26142.

**Oenanthe thomsonii** Clarke

An annual herb with white flowers. Grows gregariously in the ground cover ; very common. Khonsa, June 1961, *Deb* 25918 ; Jangkeng village, June 1961, *Deb* 25860 ; Kothong, June 1961, *Deb* 26070.

**Pternopetalum senii** Deb et Dutta

A perennial herb with purple flowers. Raho-Wakka, July 1961, *Deb* 26394.

**Sanicula elata** Buch.-Ham. ex D. Don

Perennial herb with white flowers and small fruits ; rare. Wakka, Aug. 1958, *Panigrahi* 16900 ; Kothong, June 1961, *Deb* 26056.

## LOBELIACEAE

**Lobelia affinis** Wall. var. **lobbiana** Hook. f. & Thoms.

A herb of moist soil with small, pale bluish violet flowers ; common. Chenglang-Khela, March 1958, *Murthy* 12946.

**L. pyramidalis** Wall.

Herb with solitary, axillary, bluish flowers ; rare. Chenglang-Khela, Oct. 1959, *Rao* 20261.

**L. rosea** Wall.

Shrub with violet flowers ; scarce. Khonsa-Laju, June 1961, *Deb* 25993.

**L. succulenta** Bl.

Small herb with minute violet flowers ; common. Chenglang, March 1958, *Murthy* 12912.

**Pratia montana** (Reinw.) Hassk.

A soft herb with white flowers ; common. Nampong-Pangsupass, Oct. 1959, *Rao* 20025 ; Rusa-Bimalpur, Sept. 1958, *Panigrahi* 16990 ; Raho-Wakka, July 1961, *Deb* 26409.

**P. nummularia** (Lamk.) A.Br. et Ascherson

A prostrate herb with pinkish flowers and shining chocolate brown fruits. Common in moist places. Chenglang-Khela, Oct. 1959, *Rao* 20257 ; Chenglang-Khela, March 1958, *Murthy* 12945 ; Lailongsong, 510 m, June 1961, *Deb* 25827.

## COMPOSITAE

**Adenostemma lavenia** (Linn.) O. Ktze.

Herb with whitish head ; scarce. Chenglang-Khela, Oct. 1959, *Rao* 20256 ; Wakka-Nagminu, July 1961, *Deb* 26540 ; Raho-Vokanoska, Aug. 1958, *Panigrahi* 16857 ; Pungchow, July 1961, *Deb* 26570.

**Ageratum conyzoides** Linn.

Herb in violet flowers. Very common in forest clearings. Namchick, Oct. 1959, *Rao* 20174 ; Chennhang, June 1961, *Deb* 26186.

**Ainsliaea latifolia** (D. Don) Schulz-Bip

A suffrutiscent herb with radical leaves ; scarce. Chennhang, June 1961, *Deb* 26259.

**Artemisia nilagirica** (C.B. Clarke) Pamp.

A gregarious herb ; very common. Wakka, July 1961, *Deb* 26530.

**Bidens biternata** (Lour.) Merr. & Sherff.

Herb with pinkish head ; grows gregariously in shade ; scarce. Chenglang, March 1958, *Murthy* 12928 ; Chennhang, June 1961, *Deb* 26188.

**B. pilosa** Linn.

An annual with white ligulate flowers ; common. Nampong-Pangsupass, Oct. 1959, *Rao* 20053.

**Blumea henryi** Dunn

Shrub. Khonsa, June 1961, *Deb* 25919.

**B. pubigera** (L.) Merr.

Shrub. Heads with yellowish stamens ; scarce. Khela-Chenglang, March 1958, *Murthy* 12988.

**B. laciniata** DC.

Herb with pinkish head ; scarce. Chenglang, March 1958, *Murthy* 12925.

**Cnicus griffithii** Hook f.

A tall plant. Leaves deeply cleft and thorny. Heads with greenish brown involucre of bracts ; rare. Nampong-Pangsupass, Oct. 1959, *Rao* 20150.

**Cosmos caudatus** Hook. f.

Herb with yellow flower ; scarce. Khonsa, June 1961, *Deb* 25922.

**Crassocephalum crepidiodes** (Benth.) S. Moore

A herb with purplish flowers ; common. Chenglang, March 1958, *Murthy* 12921 ; Chennhang, June 1961, *Deb* 26187.

**Eclipta prostrata** (Linn.) Linn.

Prostrate herb with white flowers ; scarce. Nampong-Pangsupass, Oct. 1959, *Rao* 20024.

**Erigeron linifolium** Willd.

Herb with whitish disked head ; scarce. Lailongsong 510 m, June 1961, *Deb* 25829 ; Laju-Raho, Aug. 1958, *Panigrahi* 14733.

**Eupatorium capillifolium** (Lamk.) Small.

A perennial herb. Cultivated as a garden plant. Margharita-Jairampur, Oct. 1959, *Rao* 19904.

**Gynura cusimbua** (D. Don) Moore

Herb with violet, orange yellow or pink red flowers. Grows gregariously in shade; fairly common. Lailongsong, 510 m., June 1961, *Deb* 25819; Kothong, June 1961, *Deb* 26048; Khonsa-Laju, June 1961, *Deb* 25983; Kothong, June 1961, *Deb* 26046.

**Gnaphalium luteoalbum** Linn.

A herb with yellow flowers in moist slopes or cultivated land. Chenglang, *Murthy* 12922; Chennhang, June 1961, *Deb* 26191.

**Lactuca rostrata** (Bl.) O. Kuntze

A herb with heads; rare. Kothong, June 1961, *Deb* 26049, Khonsa-Laju, June 1961, *Deb* 25995.

**L. gracilis** DC.

Herb with yellow flowers; scarce. Wakka, July 1961, *Deb* 26524.

**Laggera pterodonta** Benth.

A herb of moist soil with mauve coloured flowers; rare. Chenglang-Khela, March 1958, *Murthy* 12942.

**Mikania cordata** (Burm. f.) Robin.

A twining weed of *Jhum* land; very common. Namchick, Oct. 1959, *Rao* 20188.

**Myriactis nepalensis** Less.

Herb with dull white flowers; scarce. Noglo, June 1961, *Deb* 26355.

**M. wallichii** DC.

An annual herb with yellowish white head; scarce. Nampong-Pangsupass, Oct. 1959, *Rao* 20151.

**Sonchus arvensis** Linn.

A herb with axillary and terminal inflorescence; rare. Raho-Wakka, June 1961, *Deb* 26480.

**Spilanthus acmella** (Linn.) Murr.

A herb with yellowish ligulate florates head; scarce. Namchick, Oct. 1959, *Rao* 20175.

**Vernonia volkameriaefolia** DC.

A tall shrub with brown head; common. Pungchow, July 1961, *Deb* 26586.

**Wedelia wallichii** Less.

An annual herb with yellow flowers ; common. Noglo, June 1961, *Deb* 26369.

**Xanthium strumarium** Linn.

An undershrub in fruit ; scarce. Jairampur, Oct. 1959, *Rao* 19986.

**Youngia japonicum** (L.) DC.

Herb with pink flowers ; rare. Chennhang, June 1961, *Deb* 26198.

(to be continued)